MECHANICAL DATA

Bulb T-5 1/2
Base E7-1, Miniature Button 7-Pin
Outline JETEC 5-1
Basing 7BF
Cathode Coated Unipotential
Mounting Position Any

RATINGS 1 (Design Maximum)

Bulb Temperature (At Hottest Point) 165 °C
Operational Altitude 2 60,000 Ft

DURABILITY CHARACTERISTICS 3

Impact Acceleration 4 450 G Max.
Fatigue (Vibrational Acceleration for 2,5 G Max.
Extended Periods) 5

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater Voltage 6.3 V
Heater Current 450 mA

CONTROLLED DETRIMENTS

Interelectrode Insulation 6 100 Meg Min.
Total Grid Current 7 -0.5 μAdc Max.
Vibration Output 8 15 mVac Max.

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

<table>
<thead>
<tr>
<th>Section 1</th>
<th>Section 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid to Plate</td>
<td>1.4</td>
</tr>
<tr>
<td>Input</td>
<td>3.0</td>
</tr>
<tr>
<td>Output</td>
<td>0.34</td>
</tr>
<tr>
<td>Heater to Cathode</td>
<td>4.8</td>
</tr>
</tbody>
</table>

SYLVANIA ELECTRIC PRODUCTS INC.
RADIO TUBE DIVISION
EMPORIUM, PA.

Prepared and Released By The
TECHNICAL PUBLICATIONS SECTION
EMPORIUM, PENNSYLVANIA

June 10, 1958
Page 1 of 3

from JETEC release #2249, July 14, 1958
RATINGS 1 (Design Maximum - Each Section)

Heater Voltage  6.3 (±10%) V
Plate Voltage    300 Vdc
Plate Dissipation 1.1 W
Cathode Current  12.5 mA
Heater Cathode Voltage
  Heater Positive with Respect to Cathode
    Total DC and Peak  200 V
  Heater Negative with Respect to Cathode
    Total DC and Peak  200 V
    Total DC          100 V
Grid Circuit Resistance (Each Grid)  .25 Meg

CHARACTERISTICS (Each Section - Except as Noted) 9

Plate Voltage       100 Volts
Cathode Bias Resistor 10 Ohms
Plate Current       9.0 mA
Transconductance    6,000 µmhos
Amplification Factor 38
Plate Resistance    6,300 Ohms

NOTES:

1. **Design Maximum Definition**: Design Maximum ratings are limiting values of operating and environmental conditions applicable to a bogey electron device of a specified type as defined by its published data, and should not be exceeded under the worst probable conditions. These values are chosen by the device manufacturer to provide acceptable serviceability of the device, taking responsibility for the effects of changes in operating conditions due to variations in device characteristics.

   The equipment manufacturer should design so that initially and throughout life no design maximum value for the intended service is exceeded with a bogey device under the worst probable operating conditions with respect to supply voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, and environmental conditions.

2. If altitude rating is exceeded, reduction of instantaneous voltages (Ef excluded) may be required.

3. Test performed as a measure of the mechanical durability of the tube structure

4. Force as applied in any direction by the Nave type High Impact (Flyweight) Shock Machine for Electronic Devices.

5. Measured at F = 25 cps, 60 Max. Fixed Frequency.

6. Measured with Ef = 6.3 V; Eg-all = -100 Vdc; Ep-all = -300 Vdc; cathode is positive so that no cathode emission occurs.

7. Measured with Ef = 6.3 V; Eb = 250 Vdc; Rk = 500 Ohms; Rg = 1.0 Meg. Tie 1g to 2g; and 1p to 2p.
NOTES (Continued)

8. Measured with $E_b = 250 \text{ Vdc}$; $E_c = -8 \text{ Vdc}$; $R_p = 2000 \text{ Ohms}$; $R_k = 0$; $F = 40 \text{ cps}$; $A_c = 15 \text{ G}$.

9. Characteristics are measured on each section separately but with test voltages applied to both section.

10. Value is common to both sections.